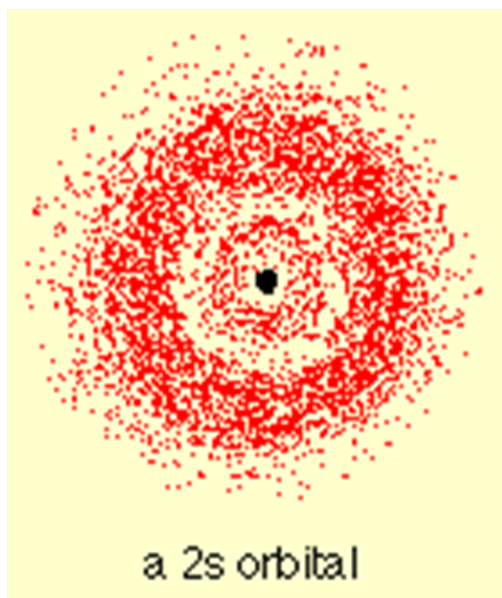
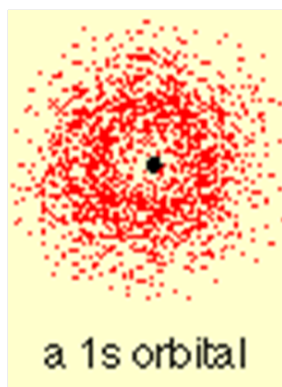
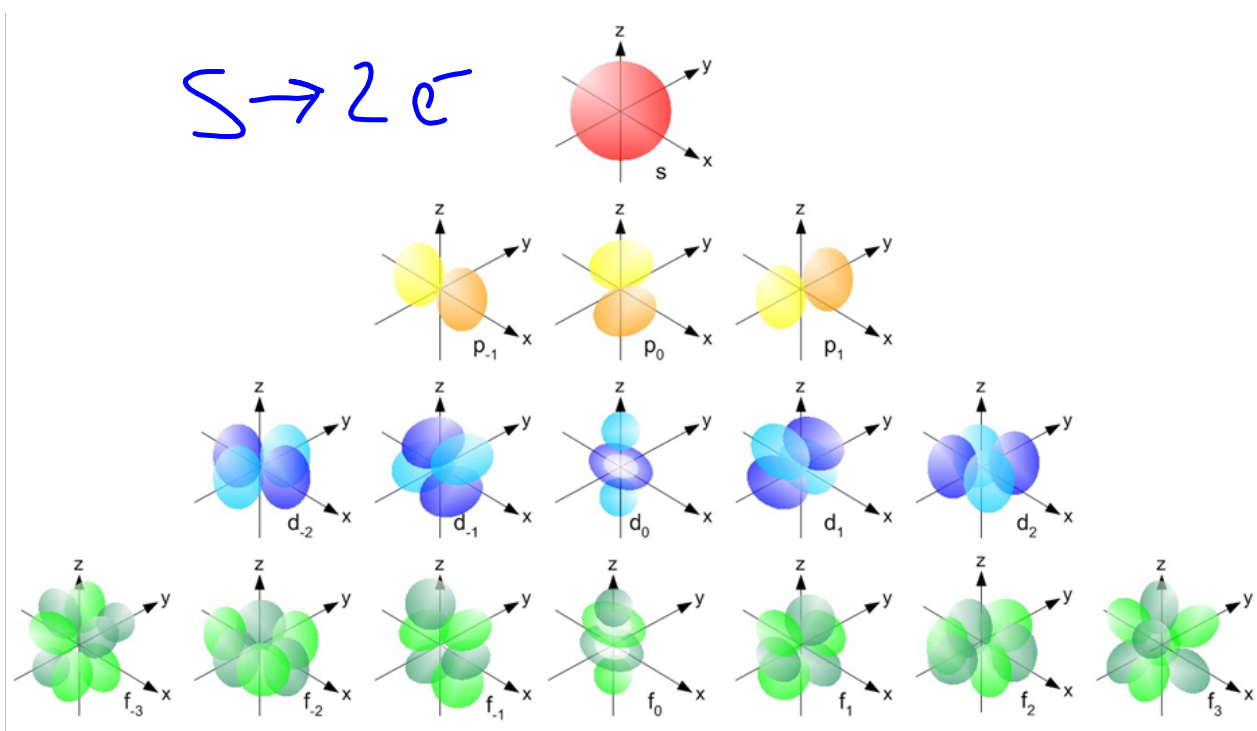


- Orbitals:
 - Where you expect to find an electron 99% of the time.



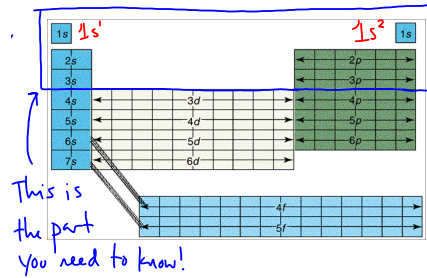
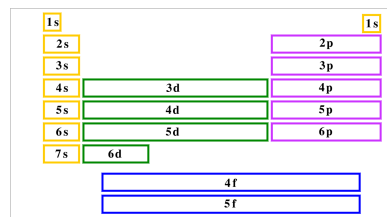
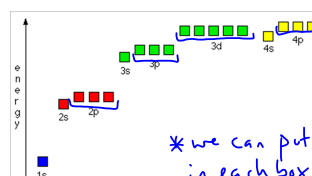
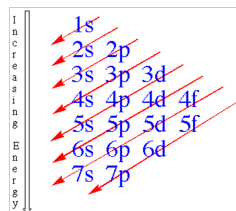
- There is a gap between the 1s and 2s orbitals

- Electron Configuration:
 - Identify where the electrons are around the atom
 - Four types of sub-orbitals:
 - s \rightarrow holds 2 electrons
 - p \rightarrow holds 6 electrons
 - d \rightarrow holds 10 electrons
 - f \rightarrow holds 14 electrons
 - Sub-orbital is the actual location of an electron
 - Each energy level contains at least one sub-orbital



- More Electron Configuration

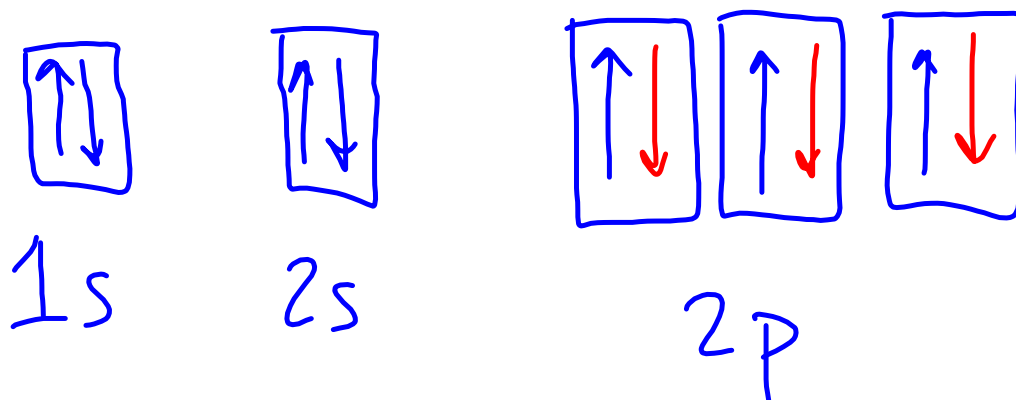
$1s^2$ ← number of electrons in sub-orbital
 ↑ ↳ sub-orbital
 energy level

H: $1s^1$ He: $1s^2$ Li: $1s^2 2s^1$ Be: $1s^2 2s^2$ B: $1s^2 2s^2 2p^1$ Ne: $1s^2 2s^2 2p^6$ Ar: $1s^2 2s^2 2p^6 3s^2 3p^6$ 

Energy Level Table → you will have this in your test

Orbital Diagrams:

- We use boxes and arrows to show the location of electrons



- Put 1 electron in each box first.

